

# MC Production

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- Current/Recent production activities
- Transition from 4.9.1  $\rightarrow$  5.3.x

## *Recently completed samples in dec./jan.:*

<http://hep.physics.utoronto.ca/RedaTafirout/mcprod/> (not very user friendly...)

→ Physics groups maintain proper WWW documentation

- Pythia DY  $Z \rightarrow ee$ , default extra material (1.5M), EWK
- Herwig Top mass samples (24 points x 200K) (4.8M), TOP
- Madgraph W/Z+ photon (13 samples/various sizes) (260K)
- Pythia DY  $Z + \gamma$  (3 x 200K), EXO
- Pythia W/Z with extra material (4M), EWK

*continued...*

- PYTHIA dijets (various  $p_{Tmin}$ , 4 x 500K) (2M), QCD
- Herwig dijets (e/mu filter 0.13%) for B tagging studies (1.4M / 9M CPU equivalent time), TOP
- Baur W+gamma (muon channel, 25 x 100K) (2.5M)

## *In Production/Pending:*

- Pythia  $WH \rightarrow \ell \nu bb$  (7 x 120K) (840K), EXO (going to tape)
- Pythia QCD Dijets (3M), EXO
- MadGraph Z+Njet (ME-PS matched by S. Mrenna) (4M), TOP
- BBBAR MCatNLO 500K
- Pythia  $W \rightarrow e \nu$ , default plug extra material (+1.5M), EWK
- Pythia DY  $Z \rightarrow \mu \mu$ , default extra material (2M), EWK
- MCNLO  $WW \rightarrow \ell \nu \ell \nu$  (250K), EWK
- MCFM  $WW \rightarrow \ell \nu \ell \nu$  (250K), EWK

## *Are we done with 4.9.1 ?*

- Not yet...
- Winter conferences analyzes will continue to use/request 4.9.1 samples. Need to find out.

## *4.9.1 → 5.3.x MCPROD package*

- 4.9.1 heritage
  - still using a package made last spring
  - runMC executable (cdfSim+Production)
  - self-contained package, suitable for farm processing

## *5.3.x specifics:*

We want to recycle some of the functionality/flexibility as in 4.9.1 (if useful)

- cdfSim and ProductionExe run separately
- TRIGSim++\_MC, does not work out of the box
- MinBias inclusion feature
- Beamline (need to define proper settings)
- Validation / Documentation

## *Currently doing development under 5.3.0*

(RT & Pasha working on this)

- Adopting some of the EWK functionality as developed by Pasha (mainly driven by the MinBias inclusion necessity)
- Will improve scripts and log files information for farm processing
- TRIGSim++\_MC (Pasha will fix it again)
- we are aiming for the timescale of 5.3.1 release (expect minimal changes in terms of MCPROD machinery)